

FULLY REIMBURSABLE SPACE ACT UMBRELLA AGREEMENT
BETWEEN
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER
AND
UNITED LAUNCH ALLIANCE, LLC
FOR
USE OF KENNEDY SPACE CENTER CAPABILITIES

ARTICLE 1. AUTHORITY AND PARTIES

In accordance with the National Aeronautics and Space Act (51 U.S.C. § 20113(e)), this Fully Reimbursable Space Act Umbrella Agreement (Agreement) is entered into by the National Aeronautics and Space Administration, John F. Kennedy Space Center, located at Kennedy Space Center, FL 32899-0001 ("NASA" or "NASA KSC"), and United Launch Alliance, LLC, located at P.O. Box 9009, Cape Canaveral, FL 32920 ("Partner" or "ULA"). NASA and Partner may be individually referred to as a "Party" and collectively referred to as the "Parties."

ARTICLE 2. PURPOSE

This Umbrella Agreement shall be for the purpose of providing Partner with NASA KSC services in support of Partner's activities at NASA KSC when NASA KSC has determined that— (a) consistent with National Space Policy, providing such services will not preclude, discourage, or compete with United States commercial providers, and (b) the services are not available under a Commercial Space Launch Act (CSLA) agreement. NASA KSC will make services available to Partner on an "as available, noninterference" basis with NASA requirements and previous NASA commitments or launch operations.

The Parties shall execute one (1) Annex Agreement ("Annex") concurrently with this Umbrella Agreement. The Parties may execute subsequent Annexes under this Umbrella Agreement consistent with the purpose and terms of this Umbrella Agreement. This Umbrella Agreement shall govern all Annexes executed hereunder; no Annex shall amend this Umbrella Agreement. This Umbrella Agreement takes precedence over any Annexes. In the event of a conflict between the Umbrella Agreement and any Annex concerning the meaning of its provisions, and the rights, obligations and remedies of the Parties, the Umbrella Agreement is controlling.

ARTICLE 3. RESPONSIBILITIES

A. Partner Responsibilities – at its own expense, Partner shall:

1. With the exception of those services identified as services that Partner must obtain from NASA, first seek to obtain services from commercial sources. Only when NASA KSC's provision of such services will not preclude, discourage, or compete with United States

commercial providers, or when NASA must provide the service, may Partner request such services from NASA. Partner will submit commercial nonavailability documentation verification upon request.

NASA will provide services under this Umbrella Agreement only to the extent that the provision of such services does not result in NASA competing with the private sector. This requirement is embodied in NASA Policy Directive 9080.1, NASA Advisory Implementing Instruction 1050.1, and the National Space Policy of the United States (June 28, 2010).

2. Request available services set forth in Exhibit B, "Reimbursable Support Services," through the NASA KSC technical point of contact (Exhibit F) using KSC Form 50-202 (Exhibit A) as part of Kennedy Documented Procedure KDP-KSC-P-9090. KSC Form 50-202 will be the basis for Annexes entered into under this Umbrella Agreement. Partner must submit these service requests with adequate advance notice and requisite information for proper scheduling and provision. To receive requested services, Partner shall adhere to any NASA requirements set forth in the form and the associated Annex.
3. Reimburse NASA in accordance with this Umbrella Agreement's Financial Obligations Article.
4. Adhere to all NASA KSC safety and health, fire protection, emergency management, export control, security, and information security requirements that are applicable to all services provided under this Agreement.

Partner will identify all its employees requiring training and make available those employees for such training. Partner shall ensure that all permanently badged Partner personnel receive training in NASA KSC hazards and controls, as defined in NASA KSC General Hazards Familiarization (QF110KSC) training materials. Partner will be responsible for ensuring that the Partner's employees, agents, contractors, tenants, or invitees comply with the contents of this training. Requests for such training shall be made through the NASA KSC technical point of contact using KSC Form 50-202, (Exhibit A) as part of Kennedy Documented Procedure KDP-KSC-P-9090.

Partner will promptly provide access to locations and information as requested by NASA safety personnel to ensure applicable safety requirements are implemented.

5. On a quarterly basis, Partner shall provide NASA with its anticipated short-term propellants and pressurants usage forecasts and other technical data that NASA may request in order for NASA to provide propellants and pressurants support to Partner activities.
6. On an annual basis—on or before sixty (60) days prior to the anniversary of the Effective Date of this Agreement—provide both long-range and short-range projections of any activities anticipated within the scope of this Agreement.

7. Comply with all applicable laws and regulations including, but not limited to, safety, security, export control, environmental, and suspension and debarment laws and regulations. Access by a Partner to NASA facilities or property, or to a NASA Information Technology (IT) system or application, is contingent upon compliance with NASA security and safety policies and guidelines, including, but not limited to, policy standards on badging and credentials and facility and IT system/application access.
 8. Unless covered by an existing Agreement with NASA KSC authorizing Partner's use or occupancy of NASA-owned real property, comply with the applicable environmental requirements set forth in Exhibit D, which is hereby incorporated by reference. The terms and conditions of any Partner agreement with NASA KSC for use and/or occupancy of NASA property shall control with regard to environmental requirements within that property's boundary.
 9. Comply with the applicable coordination of operations requirements set forth in Exhibit E, which is hereby incorporated by reference.
- B. NASA KSC Responsibilities – NASA will use reasonable efforts to:
1. Provide through the process set forth in Kennedy Documented Procedure KDP-KSC-P-9090 and on a reimbursable basis the services listed in Exhibit B. Any determination by NASA that the requested service or property is not available, that providing the service or property would compete with United States commercial providers, or that providing the service or property would interfere with its ongoing or projected launch operations will be deemed conclusive and is not subject to legal claim, judicial review, or other appeal.
 2. In response to a service request, if NASA determines the request is within the NASA policy guidelines and is readily available in the timeframe requested, provide a statement of work, estimated cost, proposed schedule, and Annex to Partner for acceptance. Following Partner's acceptance, NASA will implement the request, provided sufficient funds are on deposit and resource authority is available at NASA.
 3. In its response to service requests under subparagraph A.2. of this Article, NASA will define the applicable safety requirements for use of services support items.

ARTICLE 4. FINANCIAL OBLIGATIONS

- A. Partner shall pay to NASA KSC the estimated value identified on each Annex and Form KSC 50-202, for NASA to carry out its responsibilities under this Agreement. Partner shall make payment in advance of initiation of NASA's efforts on behalf of the Partner. Partner shall schedule advance payments to ensure that funds are resident with NASA before Federal obligations are incurred in support of work on behalf of the Partner. Goods and services provided will be subject to full cost as determined by existing Agency policy and procedures in accordance with NASA Procedural Requirements NPR 9090.1, Reimbursable Agreements.

- B. Partner shall make payment to the National Aeronautics and Space Administration through the NASA Shared Services Center. Payment by electronic transfer (#1 or #2 below) is strongly encouraged, and payment by check is to be used only if circumstances preclude the use of electronic transfer. All payments and other communications regarding this Agreement shall reference the Center name, title, date, and number of this Agreement. Choose one form of payment:

U.S. Treasury FEDWIRE Deposit System, Federal Reserve Wire Network Deposit System;

Pay.gov at www.nssc.nasa.gov/customerservice (select "Pay NASA" from the Quick Links to the right of the page); or

A check should be payable to NASA and sent to:

NASA Shared Services Center
FMD – Accounts Receivable
For the Accounts of: John F. Kennedy Space Center
Jerry Hlass Road, Building 1111
Stennis Space Center, MS 39529-0001

- C. Although NASA KSC shall make a good faith effort to accurately estimate its costs in support of this Agreement, it is understood that NASA provides no assurance that the services provided under this Agreement will be accomplished for the estimated amount. NASA KSC will not provide services or incur costs beyond the existing payment. Should the service cost more than the estimate, NASA KSC will advise Partner as soon as possible. Partner shall pay all costs incurred and have the option of canceling, modifying the scope, or providing additional funding for the service(s). Should this Agreement be terminated, or the service(s) completed at a cost less than the agreed-to estimated cost, NASA shall account for any unspent funds, and promptly thereafter return any unspent funds to Partner. All refunds will be processed via Electronic Funds Transfer (EFT) which requires completion of the Automated Clearing House (ACH) Vendor/Miscellaneous Payment Enrollment Form (OMB 1510-0056). If the service's final billing requires the payment by Partner of additional funds, payment of said funds shall be due to NASA KSC within thirty (30) days of the date of NASA's invoice. In no event will NASA transfer any U.S. Government funds to Partner under this Agreement.
- D. Notwithstanding any other provision of this Agreement, all activities under or pursuant to this Agreement are subject to the availability of funds, and no provision of this Agreement shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. § 1341.

ARTICLE 5. PRIORITY OF USE

Any schedule or milestone in this Agreement is estimated based upon the Parties' current understanding of the projected availability of NASA goods, services, facilities, or equipment. In

the event that NASA's projected availability changes, NASA shall give Partner reasonable notice of that change, so that the schedule and milestones may be adjusted accordingly. The Parties agree that NASA's use of the goods, services, facilities, or equipment shall have priority over the use planned in this Agreement. Should a conflict arise, NASA in its sole discretion shall determine whether to exercise that priority. Likewise, should a conflict arise as between two or more non-NASA Partners, NASA, in its sole discretion, shall determine the priority as between those Partners. This Agreement does not obligate NASA to seek alternative government property or services under the jurisdiction of NASA at other locations.

ARTICLE 6. NONEXCLUSIVITY

This Agreement is not exclusive; accordingly, NASA may enter into similar agreements for the same or similar purpose with other private or public entities.

ARTICLE 7. LIABILITY AND RISK OF LOSS

A. Damage or Injury

1. Partner hereby waives any claims against NASA, its employees, its Related Entities, (defined, for the purposes of this Article, as any individual or entity that a Party assigns, tasks, or contracts to perform activities under this Agreement including, but not limited to, contractors and subcontractors at any tier, grantees, investigators, customers, users, and their contractors and subcontractors, at any tier) and employees of NASA's Related Entities for any injury to, or death of, Partner employees or the employees of Partner's Related Entities, or for damage to, or loss of, Partner's property or the property of its Related Entities arising from or related to activities conducted under this Agreement, whether such injury, death, damage, or loss arises through negligence or otherwise, except in the case of willful misconduct.
2. Partner shall indemnify, defend, and hold harmless NASA and any of NASA's Related Entities (including, but not limited to, contractors and subcontractors at any tier, grantees, investigators, customers, users, and their contractors and subcontractors, at any tier) and employees of NASA's Related Entities from all liabilities and claims against NASA and any of its Related Entities arising from or related to activities conducted under this Agreement. However, in no event shall Partner be obligated to indemnify, defend, or hold harmless NASA or NASA's Related Entities from any liabilities or claims arising from the willful misconduct of NASA or NASA's Related Entities.
3. Partner further agrees to extend this unilateral waiver to its Related Entities by requiring them, by contract or otherwise, to waive all claims against NASA, its Related Entities, and employees of NASA and employees of NASA's Related Entities for injury, death, damage, or loss arising from or related to activities conducted under this Agreement.
4. In the event U.S. Government property is damaged as a result of activities conducted under this Agreement, Partner shall be solely responsible for the repair and restoration of such property subject to NASA direction.

B. Insurance Requirements

1. Partner shall, at no cost to NASA, maintain throughout the term of the Agreement, insurance covering loss of or damage to U.S. Government property as a result of any activities conducted under this Agreement. The policy must be on terms acceptable to NASA, and cover the cost of repair or replacement, or the fair market value of (as reasonably determined by NASA) any U.S. Government property (real or personal) damaged as a result of activities conducted under this Agreement, including performance by the U.S. Government or the U.S. Government's contractors or subcontractors, at any tier.
2. Partner shall, prior to conducting any activities under this Agreement, furnish to NASA certificates of insurance including material policy exclusions and waivers of subrogation evidencing such insurance. Said certificates shall state the amount of all deductibles and shall contain evidence that the policy or policies shall not be canceled or altered without at least thirty (30) calendar days' prior written notice to NASA. NASA shall be under no obligation to provide access to its facilities or equipment under this Agreement until Partner has obtained the insurance required by this Article, and NASA has deemed it to be acceptable.

ARTICLE 8. INTELLECTUAL PROPERTY RIGHTS – DATA RIGHTS

A. General

1. "Related Entity" as used in this Data Rights Article means a contractor, subcontractor, grantee, or other entity having a legal relationship with NASA or Partner, that is assigned, tasked, or contracted to perform activities under this Agreement.
2. "Data," means recorded information, regardless of form, the media on which it is recorded, or the method of recording.
3. "Proprietary Data," means Data embodying trade secrets developed at private expense or commercial or financial information that is privileged or confidential, and that includes a restrictive notice, unless the Data is:
 - a. known or available from other sources without restriction;
 - b. known, possessed, or developed independently, and without reference to the Proprietary Data;
 - c. made available by the owners to others without restriction; or
 - d. required by law or court order to be disclosed.

4. Data exchanged under this Agreement is exchanged without restriction except as otherwise provided herein.
 5. Notwithstanding any restrictions provided in this Article, the Parties are not restricted in the use, disclosure, or reproduction of Data provided under this Agreement that meets one of the exceptions in subparagraph 3 above. If a Party believes that any exceptions apply, it shall notify the other Party before any unrestricted use, disclosure, or reproduction of the Data.
 6. The Parties will not exchange preexisting Proprietary Data under this Agreement unless authorized herein or in writing by the owner.
 7. If the Parties exchange Data having a notice that the Receiving Party deems is ambiguous or unauthorized, the Receiving Party shall tell the Providing Party. If the notice indicates a restriction, the Receiving Party shall protect the Data under this Article unless otherwise directed in writing by the Providing Party.
 8. The Data rights herein apply to the employees and Related Entities of Partner. Partner shall ensure that its employees and Related Entity employees know about and are bound by the obligations under this Article.
 9. Disclaimer of Liability: NASA is not restricted in, or liable for, the use, disclosure, or reproduction of Data without a restrictive notice or for Data Partner gives, or is required to give, the U.S. Government without restriction.
- B. Data First Produced by Partner Under this Agreement

If Data first produced by Partner or its Related Entities under this Agreement is given to NASA, and the Data is Proprietary Data, and it includes a restrictive notice, NASA will use reasonable efforts to protect it. The Data will be disclosed and used (under suitable protective conditions) only for U.S. Government purposes.

C. Data First Produced by NASA Under this Agreement

If Partner requests that Data first produced by NASA under this Agreement be protected, and NASA determines it would be Proprietary Data if obtained from Partner, NASA will mark the Data with a restrictive notice and will use reasonable efforts to protect it for the period of time specified in the Annex under which the Data is produced. During this restricted period the Data may be disclosed and used (under suitable protective conditions) for U.S. Government purposes only, and thereafter for any purpose. Partner must not disclose the Data without NASA's written approval during the restricted period. The restrictions placed on NASA do not apply to Data disclosing a NASA-owned invention for which patent protection is being considered.

D. Publication of Results

The National Aeronautics and Space Act (51 U.S.C. § 20112) requires NASA to provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof. As such, NASA may publish unclassified and non-Proprietary Data resulting from work performed under this Agreement. The Parties will coordinate publication of results allowing a reasonable time to review and comment.

E. Data Disclosing an Invention

If the Parties exchange Data disclosing an invention for which patent protection is being considered, and the furnishing Party identifies the Data as such when providing it to the Receiving Party, the Receiving Party shall withhold it from public disclosure for a reasonable time (one (1) year unless otherwise agreed or the Data is restricted for a longer period herein).

F. Copyright

Data exchanged with a copyright notice and with restrictive notice is presumed to be published. The following royalty-free licenses apply:

1. If indicated on the Data that it was produced outside of this Agreement, it may be reproduced, distributed, and used to prepare derivative works only for carrying out the Receiving Party's responsibilities under this Agreement.
2. Data without the indication of F.1, above, is presumed to be first produced under this Agreement. Except as otherwise provided in paragraph E of this Article, and in the Inventions and Patent Rights Article of this Agreement for protection of reported inventions, the Data may be reproduced, distributed, and used to prepare derivative works for any purpose.

G. Data Subject to Export Control

Whether or not marked, technical data subject to the export laws and regulations of the United States provided to Partner under this Agreement must not be given to foreign persons or transmitted outside the United States without proper U.S. Government authorization.

**ARTICLE 9. INTELLECTUAL PROPERTY RIGHTS – INVENTION AND
PATENT RIGHTS**

- A. "Related Entity" as used in this Invention and Patent Rights Article means a contractor, subcontractor, grantee, or other entity having a legal relationship with NASA or Partner assigned, tasked, or contracted with to perform activities under this Agreement.

- B. The invention and patent rights herein apply to employees and Related Entities of Partner. Partner shall ensure that its employees and Related Entity employees know about and are bound by the obligations under this Article.
- C. NASA has determined that 51 U.S.C. § 20135(b) does not apply to this Agreement. Therefore, title to inventions made (conceived or first actually reduced to practice) under this Agreement remain with the respective inventing party(ies). No invention or patent rights are exchanged or granted under this Agreement. NASA and Partner will use reasonable efforts to report inventions made jointly by their employees (including employees of their Related Entities). The Parties will consult and agree on the responsibilities and actions to establish and maintain patent protection for joint invention, and on the terms and conditions of any license or other rights exchanged or granted between them.

ARTICLE 10. USE OF NASA NAME AND NASA EMBLEMS

A. NASA Name and Initials

Partner shall not use "National Aeronautics and Space Administration" or "NASA" in a way that creates the impression that a product or service has the authorization, support, sponsorship, or endorsement of NASA, which does not, in fact, exist. Except for releases under the "Release of General Information to the Public and Media" Article, Partner must submit any proposed public use of the NASA name or initials (including press releases and all promotional and advertising use) to the NASA Associate Administrator for the Office of Communications or designee ("NASA Communications") for review and approval. Approval by NASA Office of Communications shall be based on applicable law and policy governing the use of the NASA name and initials.

B. NASA Emblems

Use of NASA emblems (i.e., NASA Seal, NASA Insignia, NASA logotype, NASA Program Identifiers, and the NASA Flag) is governed by 14 C.F.R. Part 1221. Partner must submit any proposed use of the emblems to NASA Communications for review and approval.

ARTICLE 11. RELEASE OF GENERAL INFORMATION TO THE PUBLIC AND MEDIA

NASA or Partner may, consistent with Federal law and this Agreement, release general information regarding its own participation in this Agreement as desired.

Pursuant to Section 841(d) of the NASA Transition Authorization Act of 2017, Public Law 115-10 (the "NTAA"), NASA is obligated to publicly disclose copies of all agreements conducted pursuant to NASA's 51 U.S.C. §20113(e) authority in a searchable format on the NASA website within 60 days after the agreement is signed by the Parties. The Parties acknowledge that a copy of this Agreement will be disclosed in accordance with the NTAA.

ARTICLE 12. DISCLAIMERS OF WARRANTY

Goods, services, facilities, or equipment provided by NASA under this Agreement are provided "as is." NASA makes no express or implied warranty as to the condition of any such goods, services, facilities, or equipment, or as to the condition of any research or information generated under this Agreement, or as to any products made or developed under or as a result of this Agreement including as a result of the use of information generated hereunder, or as to the merchantability or fitness for a particular purpose of such research, information, or resulting product, or that the goods, services, facilities or equipment provided will accomplish the intended results or are safe for any purpose including the intended purpose, or that any of the above will not interfere with privately-owned rights of others. Neither the government nor its contractors shall be liable for special, consequential or incidental damages attributed to such equipment, facilities, technical information, or services provided under this Agreement or such research, information, or resulting products made or developed under or as a result of this Agreement.

ARTICLE 13. DISCLAIMER OF ENDORSEMENT

NASA does not endorse or sponsor any commercial product, service, or activity. NASA's participation in this Agreement or provision of goods, services, facilities or equipment under this Agreement does not constitute endorsement by NASA. Partner agrees that nothing in this Agreement will be construed to imply that NASA authorizes, supports, endorses, or sponsors any product or service of Partner resulting from activities conducted under this Agreement, regardless that such product or service may employ NASA-developed technology.

ARTICLE 14. COMPLIANCE WITH LAWS AND REGULATIONS

- A. The Parties shall comply with all applicable laws and regulations including, but not limited to, safety, security, export control, environmental, and suspension and debarment laws and regulations. Access by a Partner to NASA facilities or property, or to a NASA Information Technology (IT) system or application, is contingent upon compliance with NASA security and safety policies and guidelines, including, but not limited to, standards on badging, credentials, and facility and IT system/application access.
- B. With respect to any export control requirements:
 - 1. The Parties will comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 C.F.R. Parts 120 through 130, and the Export Administration Regulations (EAR), 15 C.F.R. Parts 730 through 799, in performing work under this Agreement or any Annex to this Agreement. In the absence of available license exemptions or exceptions, the Partner shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of hardware, technical data and software, or for the provision of technical assistance.
 - 2. The Partner shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of work under this Agreement or any Annex under

this Agreement, including instances where the work is to be performed on-site at NASA and where the foreign person will have access to export-controlled technical data or software.

3. The Partner will be responsible for all regulatory recordkeeping requirements associated with the use of licenses and license exemptions or exceptions.
4. The Partner will be responsible for ensuring that the provisions of this Article apply to its Related Entities.

C. With respect to suspension and debarment requirements:

1. The Partner hereby certifies, to the best of its knowledge and belief, that it has complied, and shall comply, with 2 C.F.R. Part 180, Subpart C, as supplemented by 2 C.F.R. Part 1880, Subpart C.
2. The Partner shall include language and requirements equivalent to those set forth in subparagraph C.1., above, in any lower-tier covered transaction entered into under this Agreement.

ARTICLE 15. TERM OF AGREEMENT

This Agreement becomes effective upon the date of the last signature below ("Effective Date") and shall remain in effect until the completion of all obligations of both Parties hereto, or five (5) years from the Effective Date, whichever comes first.

ARTICLE 16. RIGHT TO TERMINATE

Either Party may unilaterally terminate this Agreement by providing thirty (30) calendar days written notice to the other Party. In the event of such termination, Partner will be obligated to reimburse NASA for all costs for which the Partner was responsible and that have been incurred in support of this Agreement up to the date the termination notice is received by NASA. Where Partner terminates this Agreement, Partner will also be responsible for termination costs.

ARTICLE 17. CONTINUING OBLIGATIONS

The rights and obligations of the Parties that, by their nature, would continue beyond the expiration or termination of this Agreement, e.g., "Liability and Risk of Loss" and "Intellectual Property Rights" related clauses and "Financial Obligations" shall survive such expiration or termination of this Agreement.

ARTICLE 18. POINTS OF CONTACT

The personnel set forth in Exhibit F are designated as the principal Points of Contact (POC) between NASA and ULA in the performance of this Agreement. Notwithstanding Article 21,

such POCs may be modified upon the request of either Party without the authorized representatives' signatures.

ARTICLE 19. DISPUTE RESOLUTION

Except as otherwise provided in the Article entitled "Priority of Use," the Article entitled "Intellectual Property Rights – Invention and Patent Rights" (for those activities governed by 37 C.F.R. Part 404), and those situations where a pre-existing statutory or regulatory system exists (e.g., under the Freedom of Information Act, 5 U.S.C. § 552), all disputes concerning questions of fact or law arising under this Agreement shall be referred by the claimant in writing to the appropriate person identified in this Agreement as the "Points of Contact." The persons identified as the "Points of Contact" for NASA and the Partner will consult and attempt to resolve all issues arising from the implementation of this Agreement. If they are unable to come to agreement on any issue, the dispute will be referred to the signatories to this Agreement, or their designees, for joint resolution. If the Parties remain unable to resolve the dispute, then the NASA signatory or that person's designee, as applicable, will issue a written decision that will be the final agency decision for the purpose of judicial review. Nothing in this Article limits or prevents either Party from pursuing any other right or remedy available by law upon the issuance of the final agency decision.

ARTICLE 20. INVESTIGATIONS OF MISHAPS AND CLOSE CALLS

In the case of a mishap during the process of supplying services or other activities in the performance of this Agreement, NASA and Partner agree to provide assistance to each other in the conduct of any investigation. In the event that Partner processing results in a NASA mishap, Partner agrees to comply with NPR 8621.1, NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping, and NASA KSC safety policies, as appropriate.

ARTICLE 21. MODIFICATIONS

Any modification to this Agreement shall be executed, in writing, and signed by an authorized representative of NASA and the Partner.

ARTICLE 22. ASSIGNMENT

Neither this Agreement nor any interest arising under it will be assigned by the Partner or NASA without the express written consent of the officials executing, or successors, or higher-level officials possessing original or delegated authority to execute this Agreement.

ARTICLE 23. APPLICABLE LAW

U.S. Federal law governs this Agreement for all purposes, including, but not limited to, determining the validity of the Agreement, the meaning of its provisions, and the rights,

obligations and remedies of the Parties.

ARTICLE 24. INDEPENDENT RELATIONSHIP

This Agreement is not intended to constitute, create, give effect to or otherwise recognize a joint venture, partnership, or formal business organization, or agency agreement of any kind, and the rights and obligations of the Parties shall be only those expressly set forth herein.

ARTICLE 25. LOAN OF GOVERNMENT PROPERTY

In addition to submitting a KSC Form 50-202, the parties shall enter into a NASA Form 893, Loan of NASA Equipment, for NASA equipment loaned to the Partner under this Agreement.

ARTICLE 26. SIGNATORY AUTHORITY

The signatories to this Agreement covenant and warrant that they have authority to execute this Agreement. By signing below, the undersigned agrees to the above terms and conditions.

NATIONAL AERONAUTICS AND SPACE
ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER

BY: Nancy P Bray
Nancy Bray
Director, Spaceport Integration and Services
Mail Code: SI
Kennedy Space Center, FL 32899-0001

UNITED LAUNCH ALLIANCE, LLC

BY: Todd R. Pankuch
Todd R. Pankuch
Launch Operations Lead, Contracts & Pricing
P.O. Box 9009
Cape Canaveral, FL 32920

DATE: 2/22/2018

DATE: 21-Feb-2018

Exhibit A
TASK ORDER REQUEST

Task Order Request			
Submit form to: KSC-TASK-ORDER-REQUESTS@mail.nasa.gov			
Services/Support Authorization From:		Services/Support Provided to: (Partner Name)	
<input type="checkbox"/> Commercial Space Launch Act (CSLA) Subagreement <input type="checkbox"/> Enhanced Use Lease (EUL) / Use Permit <input type="checkbox"/> Space Act Agreement (SAA) <input type="checkbox"/> Other		NASA/Kennedy Agreement Number:	
Mission: (If applicable)		Need Date	Control Number (to be completed by NASA)
TECHNICAL POINT OF CONTACT			
Name		Phone Number	Email Address
Authorized Requester (Print Name)			Date of Request
Description of Desired Services/Support:			

Task Order Request		
Services/Support Authorization From: <input type="checkbox"/> Commercial Space Launch Act (CSLA) Subagreement <input type="checkbox"/> Enhanced Use Lease (EUL) / Use Permit <input type="checkbox"/> Space Act Agreement (SAA) <input type="checkbox"/> Other	Services/Support Provided to: (Partner Name) NASA/Kennedy Agreement Number:	
Mission: (If applicable)	Need Date	Control Number (to be completed by NASA)
TO BE COMPLETED BY NASA		
Services/Support Offered:		
Proposed Schedule		
Estimated Cost		Funds Available? <input type="checkbox"/> Yes <input type="checkbox"/> No
NASA Project Engineer (Print Name)	NASA Project Engineer (Email Address)	Phone Number
NASA Approver (Print Name)	NASA Approver (Signature) <div style="border: 1px solid black; height: 20px; width: 100%;"></div>	Date
Partner Concurrence (Print Name)	Partner Concurrence (Signature) <div style="border: 1px solid black; height: 20px; width: 100%;"></div>	Date

KSC FORM 50-202 NS 09/14 (1.1) PREVIOUS EDITIONS ARE OBSOLETE. Validate prior to use.

NRRS 1/6.B
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Exhibit B
REIMBURSABLE SUPPORT SERVICES

Commodity/Service	Service Level
Short-Term Use of Launch Control Room (Per Launch Basis)	<p>Temporary access to idle facility capabilities and equipment to support Partner's operations. NASA will provide facility maintenance, utilities, custodial services, and oversight during occupancy.</p> <p>Partner shall comply with all operational, security, environmental, and safety requirements when using NASA facilities or property.</p>
Short-Term Use of Office Space (less than one year)	<p>Temporary access to idle facility capabilities and equipment to support Partner's operations. NASA will provide facility maintenance, utilities, custodial services, and oversight during occupancy.</p> <p>Partner shall comply with all operational, security, environmental, and safety requirements when using NASA facilities or property.</p>
Short-Term Use of Space Station Processing Facility Processing Space (less than one year)	<p>Temporary access to idle facility capabilities and equipment to support Partner's operations. NASA will provide facility maintenance, utilities, custodial services, and oversight during occupancy. Facility operated by the NASA International Space Station Program.</p> <p>Partner shall comply with all operational, security, environmental, and safety requirements when using NASA facilities or property.</p>
Short-Term Use of Payload Hazardous Servicing Facility Processing Space (less than one year)	<p>Temporary access to idle facility capabilities and equipment to support Partner's operations. NASA will provide facility maintenance, utilities, custodial services, and oversight during occupancy. Facility operated by the NASA Launch Services Program.</p> <p>Partner shall comply with all operational, security, environmental, and safety requirements when using NASA facilities or property.</p>
Use of Support Equipment	<p>Temporary use of equipment to support Partner's operations may be provided in accordance with this Agreement's Loan of Government Property Article.</p>
*Communications Services	<p>Establish point-to-point communication circuits from demarcation point to available communication services, as requested, utilizing excess Government resources.</p> <p>Partner may pay for adding infrastructure to the communication duct system as required. Partner must pay for the installation and maintenance required on the cable.</p> <p>Communication circuit maintenance (per month cost) is provided as a recurring Information Technology service utility in accordance with this Agreement's Responsibilities and Financial Obligations Articles.</p>

Commodity/Service	Service Level
Launch Telemetry and Communication Services	Services operated by the NASA Launch Services Program (KSC & VAFB), including the NASA telemetry lab, Mission Director's Center, Launch Vehicle Data Centers, and other communications services or connectivity. This does not include use of Communication Security or Tracking and Data Relay Satellite System equipment.
*Locksmith	Provide cores on external doors and fire panels. Partner shall procure commercial locksmith services for lock cores not required by KSC for emergency/fire access.
Janitorial	Specialized cleaning services (i.e., cleanroom services)
KSC Institutional and Operational Support	Technical shop and laboratory support, operational support, launch imagery products and analysis, telemetry, heavy equipment (e.g., forklifts, cranes, KAMAGs, Crawler/Transporter), transportation, permitting, meteorological support, site planning, technical training, and other services as deemed appropriate by NASA on a case-by-case basis.
*Police/Fire/EMS	Dedicated fire or security support (e.g., facility access control, road closures, armed guards, dedicated in-district/in-station fire support, on-Center security escorts).
Propellants and Propellants Services	<p>Ordering, receiving, storage, maintenance, and delivery of propellants, pressurants (such as gaseous helium (GHe), gaseous nitrogen (GN2), liquid hydrogen (LH2), liquid oxygen (LO2), liquid nitrogen (LN2), hypergolic fuels/oxidizers, and certain specialty gases and solvents), and equipment; related ancillary laboratory support services; and Partner's use of propellant servicing areas or capabilities (e.g., Universal Propellant Servicing System).</p> <p>KSC may provide hypergolic fuels and standard decontamination services for hypergol storage cylinders, hoses, and select components.</p> <p>Partner will provide anticipated short-term propellants and pressurants usage forecasts and other technical data, as necessary for NASA to provide support.</p>
Life Support	Staging, maintenance, and inspection of life support equipment, which can include Self-Contained Atmospheric Protective Ensemble (SCAPE), Emergency Life Support Apparatus, Self-Contained Breathing Apparatus, or other respiratory equipment.
*Ordnance Storage and Transport	Receiving, transportation, and storage of ordnance on KSC.
Occupational Medicine and Environmental Health	Supply of Occupational Health Facility services during normal KSC operational hours in support of certifications (e.g., SCAPE), as well as Environmental Health Services such as industrial hygiene and radiation safety consultation.

Commodity/Service	Service Level
Payload Integration Services	Analytical and physical integration of payloads to spacecraft.
Thermal Protection System Services	Services may include, but are not limited to, tile, blankets, and coupons. All materials required for thermal protection shall be provided by the Partner at its own expense.
Safety and Engineering	Design and development of facility/vehicle ground and flight systems, evaluation, documentation, analysis, test procedures, launch procedures, and operational procedures.
Component Cleaning, Calibration, and Testing	Calibration and certification of commercial devices and proof loading of handling/lifting fixtures. Nondestructive evaluation, chemical sampling and analysis, and precision cleaning and refurbishment.
*Spill Cleanup	Remediation of spills on pervious and impervious surfaces, confirmation sampling, and reporting.
Regulated Waste	<p>Regulated Waste – hypergolic: hypergolic waste sampling, characterization, and disposal.</p> <p>Regulated Waste – other: waste sampling, characterization, and disposal. Regulated wastes include, but are not limited to, hazardous waste, ordnance waste, nonhazardous industrial waste, biomedical waste, asbestos waste, industrial wastewater, polychlorinated biphenyl waste, etc. Hazardous wastes shall be manifested, shipped, and disposed of under Partner's Environmental Protection Agency hazardous waste generator identification number. Service will be evaluated on a case-by-case basis and may be available depending on specialization of service request.</p>
*Discharge Approval (Nondomestic Wastewater)	Review, coordinate, and obtain approval from the U.S. Air Force/45th Space Wing for Partner's request to discharge nondomestic wastewater into the KSC/Cape Canaveral Air Force Station sewer system.
Environmental Support	Consultations, sampling, monitoring, regulatory reporting, environmental assessments.
Guest and Media Support Services	Launch viewing and special event sites and associated support services (e.g., logistics, audiovisual) in accordance with this Agreement's Special Considerations for Guest and Media Support Services Exhibit.

***These services must be obtained from NASA even if commercially available.**

Exhibit C

SPECIAL CONSIDERATIONS FOR GUEST AND MEDIA SUPPORT SERVICES

The following requirements apply to guest and media support services:

- A. Partner shall coordinate with NASA's Communication and Public Engagement directorate, Outreach and Communication Offices, on the desired use of date, location, requested KSC contractor services, excluding food services, and the number of planned guests and media 45 days prior to planned activity or as soon as known.
- B. Partner shall notify and coordinate directly with KSC's on-site contractor for access to facilities and communication feeds required for the transmission of signal from mission control to KSC facilities to enable mission coverage for media and guests at KSC launch viewing sites 45 days prior to the planned activity date (where applicable).
- C. Partner shall submit to designated NASA Outreach Office and Protective Services points of contact, for approval, an Integrated Guest Operations and Communications Plan, including a Security Plan for each activity 45 days in advance of the planned activity date.
- D. Partner shall submit to NASA Outreach Office and Protective Services points of contact an integrated list of foreign national guests and foreign national media with required supporting information, in accordance with NASA policy, 45 days in advance of planned activity date.
- E. Partner shall make advance payment to NASA for the estimated cost of each activity 30 days in advance of planned activity date.
- F. Partner shall submit any updated required documentation (Guest list [including media with both foreign national and U.S. citizens] at each viewing site; updated Integrated Guest Operations and Communications Plan for each activity; updates to viewing site(s) logistics to allow time for implementation; list of bus/foreign national escorts; security points of contact for viewing site(s)) and complete requirements coordination for final site approval 10 business days prior to the planned activity date.
- G. Partner shall notify and coordinate directly with KSC's Food Service and Visitor Complex Concessioners for requirements provided by those entities responsible for non-NASA-controlled property (e.g., catering) where applicable. Payment terms and cost estimates for Concessioner-provided services are negotiated directly between Partner and respective Concessioner unless otherwise agreed to in estimate provided to Partner.
- H. Partner shall notify the NASA KSC Legislative Affairs Office via the Legislative Affairs Office point of contact of any elected officials being escorted onto KSC property for launch viewing, special event purposes, or any other purposes.
- I. Partner shall adhere to all NASA policies and regulations, including, but not limited to, those pertaining to alcohol on KSC.
- J. NASA will collaborate with Partner on joint launch viewing of NASA missions and special events, and provide support services on a reimbursable basis to include development of an Integrated Guest Operations and Communications Plan for each event.

K. For collaborative efforts, Partner shall not invite or approve any media for entry into, or use of, KSC launch viewing or special event sites without prior approval of NASA.

For additional information regarding guest and media support, please contact:

Outreach Office

Rebecca Lewis
Mail Code: PX-O
Kennedy Space Center, FL 32899-0001
Phone: 321-867-4053
Rebecca.L.Lewis@nasa.gov

Protective Services

Richard Hewitt
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Richard.Hewitt-1@nasa.gov

Communication Office

Kathleen H. Ellis
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Tina Delahunty
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Legislative Affairs Office

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Exhibit D
COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS

1. Definitions

As used in this Agreement, "**Environmental Law**" shall mean all applicable Federal, state, and local environmental laws, statutes, ordinances, regulations, rules, judicial and administrative orders, and decrees issued by governmental agencies (including, but not limited to, the United States Environmental Protection Agency, United States Department of Transportation, United States Occupational Safety and Health Administration, United States Nuclear Regulatory Commission, and Florida Department of Environmental Protection), existing now or later adopted during the term of this Agreement.

As used in this Agreement, "**Hazardous Material**" shall mean any hazardous material, hazardous substance, or hazardous waste as defined under Environmental Law.

As used in this Agreement, "**Regulated Waste**" shall mean nonmunicipal solid waste of which the management and/or disposal are regulated by Environmental Law or the release of the waste to the environment (either on or off KSC) would require remediation by Environmental Law or by the NASA KSC Resource Conservation and Recovery Act hazardous waste operating permit. Examples include hazardous waste, nonhazardous industrial waste, biomedical waste, asbestos waste, industrial wastewater, propellant waste, ordnance waste, polychlorinated biphenyl waste, and radioactive waste.

As used in this Agreement, "**Environmental Permit**" shall mean environmental permit, license, registration, authorization, clearance, or regulatory agency approval.

As used in this Agreement, "**Permit Application**" shall mean permit application forms and supporting documentation, Notice of Intent forms and supporting documentation, registration forms, license forms, or other regulatory approval requests.

As used in this Agreement, "**Natural Resource Permits**" shall mean Environmental Resource Permits issued by the Florida Department of Environmental Protection (FDEP) or St. Johns River Water Management District under Florida Administrative Code, Chapters 40C and 62, and permits issued by the United States Army Corps of Engineers under Section 404 of the Clean Water Act.

As used in this Agreement, "**Partner Entities**" shall mean all employees, consultants, developers, contractors, subcontractors, tenants, or other entities performing, managing, or directing work for Partner.

2. General Compliance and Permitting

A. Unless otherwise stated in this Agreement or an Annex, Partner is solely responsible for all environmental compliance and permitting requirements, at Partner's expense, associated with:

1. Services and work performed by NASA contractors and/or NASA personnel for Partner under this Agreement regardless of location;

2. NASA-owned equipment deployed to Partner sites to support Partner activities and operations, regardless of whether the equipment is used, controlled, maintained, repaired, serviced, fueled, or operated by Partner personnel or by NASA contractors;
 3. Facilities, infrastructure, and equipment used by NASA contractors to accomplish services requested by Partner under this Agreement; and
 4. Regulated Waste generated by NASA contractors while accomplishing the services requested by Partner under this Agreement, regardless of location.
- B. Partner shall ensure that all environmental compliance requirements in this Exhibit are communicated to all NASA contractors performing services for Partner under this Agreement and to all Partner Entities. In accordance with this Agreement's Liability and Risk of Loss Article, Partner shall be liable for any environmental contamination and any noncompliance with Environmental Law (including all associated penalties and/or fines) associated with the performance of services under this Agreement.
- C. When performing services for Partner under this Agreement, NASA contractors' compliance with Environmental Law, applicable Environmental Permit terms and conditions, and contract requirements shall be at Partner's expense.
- D. If the services performed under this Agreement cause an environmental compliance concern, a noncompliance situation, or compliance status change for NASA, Partner shall take measures to remedy the situation by working with the NASA to change operations to avoid/prevent the noncompliance situation or by requesting a modification to the impacted NASA Environmental Permit or infrastructure to accommodate the activities. If formal enforcement actions are taken against NASA for environmental violations due to services provided under this Agreement, Partner shall reimburse NASA for any fines or penalties assessed.
- E. If an Environmental Permit is required to execute the services performed under this Agreement, the Partner shall be responsible for obtaining the Environmental Permit at Partner's expense. When required by law or regulation, NASA may sign Permit Applications as the land owner or utility system owner. Partner shall submit courtesy copies of all submitted Permit Applications to the NASA Environmental Assurance Branch (EAB) within 5 working days after submission to the regulatory agency. Partner shall submit courtesy copies of all Environmental Permits to the NASA EAB within 5 working days after receipt from the regulatory agency. Partner shall ensure that all operations, activities, equipment, and facilities are in full compliance with all Environmental Permit terms and conditions. Upon termination of this Agreement, Partner shall cancel all Environmental Permits.
- F. In certain instances, NASA may allow Partner to modify an existing NASA-held Environmental Permit to execute the services performed under this Agreement or allow Partner's activity to be covered under an existing NASA permit. If both NASA and Partner agree to this arrangement, Partner shall prepare the required Permit Application at Partner's expense; submit the Permit Application to the NASA EAB for review, approval, and processing with the regulatory agency; and pay any application or registration fee directly to the regulatory agency. Partner shall assist NASA in obtaining the Environmental Permit

modification by preparing and assisting with responses to regulatory agency questions, preparing formal responses to regulatory agency Requests for Additional Information, preparing briefings, and attending meetings at Partner's expense. Once the Environmental Permit modification is obtained, Partner shall ensure that all construction, operations, activities, and facilities are in compliance with all Environmental Permit terms and conditions, which may include conducting inspections, performing sampling/testing, maintaining records, performing facility/infrastructure maintenance or repair, and preparing operating reports at Partner's expense. Partner shall prepare all required regulatory reports/data at Partner's expense and submit them to the NASA EAB for submission to the regulatory agency. All communication and interface with regulatory agencies regarding activities conducted under a NASA-held Environmental Permit must be coordinated through and performed by the NASA EAB. Partner shall be responsible for immediately correcting all violations, findings, and deficiencies identified by a regulatory agency or NASA at Partner's expense. Partner shall provide copies of all records required by or used to demonstrate compliance with all Environmental Permits to the NASA EAB. NASA will decide whether to modify the Environmental Permit to remove Partner's coverage or activity. If the Environmental Permit is to be modified, Partner shall prepare the required Permit Application at Partner's expense; submit the Permit Application to the NASA EAB for processing with the regulatory agency; pay any application or registration fee directly to the regulatory agency; and assist NASA in obtaining the Environmental Permit modification.

3. KSC Environmental Checklists and National Environmental Policy Act (NEPA)

- A. NASA may require additional information about the services requested on the KSC Form 50-202 to evaluate the compliance, permitting, or NEPA requirements associated with the work. When requested by NASA, Partner shall provide requested information and completed KSC Environmental Checklists (KSC Form 21-608) to the NASA Environmental Management Branch (EMB) for evaluation. Projects, activities, and circumstances that typically require KSC Environmental Checklists include:
 - 1. Services that generate Regulated Waste, involve air emissions, impact existing NASA-held permits, or involve the deployment of NASA-owned equipment;
 - 2. Facility construction, demolition, or modification projects (major or minor);
 - 3. Excavations, land clearing, vegetation removal, or grading;
 - 4. Installing new impervious surface, removing existing impervious surface, or changing the permeability of existing pervious surface;
 - 5. Connecting, disconnecting, or modifying the configuration or operation of a NASA-owned system, facility, utility, or stormwater management system; and
 - 6. Changes in site operations, activities, facility operator, occupant, or tenant.
- B. Partner shall comply with all the environmental requirements and direction provided by the NASA EMB in the subsequent Record of Environmental Consideration (REC) response.
- C. If required in the REC, Partner is responsible for funding and completing required environmental assessments; NEPA documentation; National Historic Preservation Act

documentation; and environmental mitigation measures for the services performed under this Agreement.

4. Historical and Cultural Resources

Partner shall not remove or disturb, or cause or permit to be removed or disturbed, any historical, archaeological, architectural, or other cultural artifacts, relics, vestiges, remains, or objects of antiquity. In the event such items are discovered when performing services for Partner under this Agreement, Partner shall cease its activities, immediately notify the NASA EMB, and protect the site from further disturbance until the NASA EMB gives clearance to proceed. Any costs resulting from this delay shall be the responsibility of Partner. Any known "artifacts" associated with the facility will be removed before modification/demolition and processed through the General Services Administration Portal. Partner shall comply with requirements outlined in the most recent Programmatic Agreement between NASA KSC, Federal Advisory Council on Historic Preservation, and the Florida State Historic Preservation Office regarding management of historic properties at KSC (KCA-4185).

5. Regulated Waste Management and Disposal

Partner shall be responsible for all Regulated Wastes generated by NASA contractors during the performance of services for Partner under this Agreement, regardless of whether the Regulated Wastes were generated at Partner work sites/facilities or at NASA contractor work sites/facilities. Unless stated in this Agreement or an Annex, NASA contractors will not provide Regulated Waste management and disposal services to Partner. Partner shall make separate arrangements for the proper storage, sampling, characterization, manifesting, shipping, and disposal of those Regulated Wastes in accordance with Environmental Law at Partner's expense. Hazardous wastes shall be manifested, shipped, and disposed of under a Partner United States Environmental Protection Agency hazardous waste generator identification number.

6. Spill Reporting and Cleanup

- A. Partner shall be responsible for all costs associated with the reporting and cleanup of spills and unpermitted releases of Hazardous Materials that occur during the performance of services for Partner under this Agreement, regardless of whether the spill or release occurs at Partner work sites/facilities or at NASA contractor work sites/facilities.
- B. For spills and unpermitted releases of Hazardous Materials occurring during performance of services for Partner under this Agreement, the NASA contractor will notify NASA and submit reporting forms in accordance with Kennedy NASA Procedural Requirements 8500.1 (KSC Environmental Requirements) at Partner's expense. NASA will perform any required reporting to off-site authorities, such as the National Response Center, State of Florida Watch Office, and Florida Department of Environmental Protection. NASA will perform the cleanup and prepare cleanup reports at Partner's expense.
- C. All spills shall be cleaned up to state of Florida residential standards unless approved in writing by the NASA EAB.

- D. Partner shall be responsible for off-site shipment and disposal of all cleanup waste and contaminated environmental media in accordance with paragraph 5 above.
- E. The liability of Partner under this Exhibit of this Agreement shall survive the termination of this Agreement with respect to acts or omissions that occur before such termination.

7. Air Emissions Compliance

- A. NASA holds a facility-wide Federal Clean Air Act Title V Air Operation Permit issued by the FDEP that governs air emissions from hundreds of NASA-owned regulated and insignificant emission sources and activities across KSC and Cape Canaveral Air Force Station. The NASA EAB will provide a copy of the latest version of this permit to Partner upon request.
- B. If NASA-owned equipment is deployed to Partner sites or used by NASA contractors at other locations to perform services under this Agreement, Partner shall be responsible for complying with all air emission compliance requirements (such as recordkeeping, maintenance, testing, use restrictions, emissions limits, permitting, etc.) levied by the NASA EAB in the REC at Partner's expense. If Partner opts to have NASA's contractor execute these requirements, such costs shall be documented in the applicable Annex. If Partner's proposed or actual use of NASA-owned equipment triggers an air emissions permitting action, Partner shall coordinate with the NASA EAB to discuss the approach, alternatives, and requirements. If NASA agrees to modify the NASA KSC Title V Air Operation Permit, Partner shall be responsible for completing the permitting action and meeting all compliance requirements in accordance with paragraph 2.F. at Partner's expense. Otherwise, Partner may be required to obtain and manage its own separate air emissions permit for the use of NASA's equipment in accordance with paragraph 2.E. at Partner's expense. These requirements apply regardless of whether the equipment is used, managed, controlled, maintained, repaired, serviced, fueled, or operated by Partner personnel or by NASA contractors.
- C. If Partner or NASA contractors performing services for Partner under this Agreement generate air emissions at existing emission sources (such as paint booths, vent hoods, scrubbers, backup power generators, etc.) covered under the NASA KSC Title V Air Operation Permit, the NASA EAB shall preapprove the work to ensure that the Partner's proposed activities and air emissions will not violate permit conditions, limit NASA's operational flexibility, require a permit modification, or subject NASA to undue compliance liability. If approved, Partner is responsible for ensuring that its work activities comply with all air emission compliance requirements (such as recordkeeping, maintenance, testing, use limitations, permitting, etc.) levied by the NASA EAB in the REC at Partner's expense. If Partner opts to have NASA's contractor execute these requirements, such costs shall be documented in the Annex. If a permitting action is required and NASA agrees to modify the NASA KSC Title V Air Operation Permit, Partner shall execute the permitting action and meet all compliance requirements in accordance with paragraph 2.F. at Partner's expense.

8. Stormwater and Natural Resource Permitting

If Partner receives notice that services performed by NASA contractors for Partner under this Agreement impact an existing NASA stormwater system or permit, impacts an existing Natural Resource Permit, requires a new stormwater management system and permit, or requires a new Natural Resource Permit, Partner shall meet with the NASA EAB to discuss the approach, alternatives, and requirements. Partner shall be responsible for complying with all requirements levied by the NASA EAB in the REC at Partner's expense. If Partner opts to have NASA's contractor execute these requirements, such costs shall be documented in the Annex. Partner shall be responsible for executing any permitting actions in accordance with paragraphs 2.E. or 2.F. at Partner's expense.

9. Spill Prevention, Control, and Countermeasures (SPCC)

If NASA-owned SPCC-regulated oil storage containers or oil-filled equipment is deployed to Partner sites or dedicated to Partner operations for at least 6 consecutive months as a part of the services provided under this Agreement, NASA will develop and maintain site-specific SPCC plans for those items at Partner's expense. Such costs shall be documented in the Annex that authorizes the service. Partner shall comply with all NASA SPCC plan requirements and allow NASA contractors access to conduct inspections and perform maintenance/repairs necessary to maintain SPCC compliance at Partner's expense.

10. NASA Reviews

Partner shall allow NASA personnel full access to conduct reviews of all facilities, systems, equipment, records, and wastes to ensure compliance with the environmental requirements outlined in this Exhibit. Partner shall attend all reviews. Partner shall immediately correct findings and deficiencies identified during a review at Partner's expense and deliver corrective action responses to NASA by the due date in the postreview letter.

11. Continuing Liability

In accordance with this Agreement's Liability and Risk of Loss Article, this environmental Exhibit shall survive the termination of this Agreement with respect to any damage, bodily or personal injury, illness, or death occurring prior to such termination. This environmental Exhibit shall survive the termination of this Agreement with respect to any environmental noncompliance condition(s) identified (before or after termination of this Agreement) by NASA KSC; Federal, state, or local regulatory authorities; or Partner and shall continue until such noncompliance condition is fully mitigated, remediated, abated, or otherwise remedied to the satisfaction of NASA KSC and Federal, state, or local regulatory authorities with an interest in the noncompliance condition.

EXHIBIT E
COORDINATION OF OPERATIONS ON THE PREMISES

NASA manages the Spaceport Integrated Master Schedule (SIMS) to coordinate maintenance tasks, track resources, major hazards, and other relevant information throughout KSC. Partner shall participate in the SIMS process including meetings and information exchange in order to provide the following required information:

- Launch, landing, and/or recovery operations
- Major operations testing (e.g., wet dress rehearsal, launch abort testing, static fire operations)
- Advise when planning use of cryogenic fuels (does not include LOX), hypergolic materials, or ammonia fluids requiring a 50 ft. or greater safety clear
- Advise when planning ordnance, explosives, or solid propellant operations requiring a 50 ft. or greater safety clear
- Nuclear materials operations
- Unmanned aircraft systems operations over areas outside the Premises
- Operations utilizing Class III and IV lasers, unless hazards are confined to a specific location within a facility or facility boundary
- Specific routing of flight hardware or significant science arriving on, transiting through, or departing from KSC with air quality concerns or restrictions, or which require permitting; including movement of any load that exceeds KSC road/bridge width or weight restrictions
- Instances of documented increased facility air quality restrictions
- Operations that require large-volume-usage of the NASA nitrogen and helium pipelines as described by the following:
 - Low pressure gaseous nitrogen (GN2) - Any use
 - High pressure GN2 – any additional flows of 1,000 standard cubic feet per minute are required for more than 1 hour or any time pressures greater than 4,200 pounds per square inch gage (psig) are required.
 - Gaseous Helium (GHe) – any time there is a requirement to take more than 50,000 standard cubic feet (scf), or any time pressure is required above 4,500 psig.
- Roadblocks or road closures on KSC
- Operations that require one of the FAA-defined restricted airspace designations (R2932, R2933, R2934) to be called up for use
- Construction activities or large construction equipment/material moves that could reasonably be anticipated to impact spaceport users' operations
- Significant spaceport user-identified milestones associated with operations (e.g., facility readiness to support operations, award of certificate of occupancy, or major ground system acceptance/activation)
- Operations requiring radio frequency (RF) silence or RF restrictions
- Public affairs/media events that could reasonably be anticipated to impact spaceport users' operations
- Other operations or events that could potentially create adverse impacts to spaceport users (e.g., large quantity FireX flows in excess of 10 gallons per minute and/or

flushing operations using potable water, any water tower fills, large electrical loading/power usage, non-standard or off-nominal infrastructure usage/modification).

NASA and Partner will establish a process to communicate relevant real-time information in regards to emergent problems that affect each other. NASA will manage the prioritization of shared assets and resolution of real-time resource conflicts if applicable. Real-time coordination during operations which impact or could reasonably be anticipated to impact KSC operations outside the Premises shall be done through the JSTC (or KSC Duty Office) at 321-861-5464. This shall include, for example, start/stop notifications of major hazardous operations and any significant real-time deviations from the published integrated schedule, provided they impact or could reasonably be anticipated to impact KSC operations outside the Premises.

Policies Relating to Operations

Use of ionizing or nonionizing radiation sources on NASA shall be in compliance with Kennedy NASA Procedural Requirements (KNPR) 1860.1 and KNPR 1860.2 and coordinated with Industrial Health via the NASA Technical Point of Contact.

Partner shall work with the Technical Point of Contact (in Exhibit F) to obtain (a) hot – work permits at least twenty – four (24) hours prior to performing any welding, cutting, torching or similar open flame work, and (b) permits for excavation/drilling, confined space entry, facility closure/obstruction and high voltage electrical work, in each case before any such work commences.

To ensure Partner maintains a hot work program, KSC Fire Prevention can issue a 30 day hot work permit to the Partner safety manager for the entire Partner complex (along with training in Hot work accordance with NFPA 51B) and every 30 days spot check hot work areas and reissue the permit for an additional 30 days. For areas that are permanently established and arranged to conduct hot work, KSC Fire Prevention will perform an initial inspection and issue a permanent hot work for that area. Partners will ensure compliance with OSHA Regulations and with NFPA 51B Standard for Fire Prevention during Welding, Cutting, and Other Hot Work 2014 Edition and Hot Work Permitting will be performed by KSC Fire Prevention.

To ensure compatibility with the NASA KSC Electromagnetic Environmental Effects Working Group, prior to initial operation of any RF transmitter Partner shall coordinate with the NASA Technical POC identified in Exhibit F to obtain a KSC Radio Frequency (RF) Authorization for all radio frequency transmitters. NASA KSC will endeavor to provide transmitter authorization within two (2) weeks after receipt of all required data.

Partner will be responsible for ensuring all Unmanned Aerial Systems (UAS) conducting flight operations within the partner's perimeter meet flight safety standards which have been approved by both NASA KSC and the U.S. Air Force 45th Space Wing. The Partner will not be responsible for ensuring airworthiness of aircraft built by, sponsored by, or contracted to NASA, or are already FAA certified airworthy, and NASA will not be responsible for the Partner's aircraft airworthiness certification. NASA reserves the right to review the Partner's process, flight plan, and rationale before commencing flight operations, and restrict UAS flight operations as

appropriate. When operating within Special Use Airspace, Partner must satisfy requirements of the operator of that airspace, the U.S. Air Force 45th Space Wing.

Partner shall follow all NASA policies and procedures for badging and escorting Foreign Nationals requiring access to KSC (KNPR1600.1, KDP-KSC-P-3722 and KDP-KSC-P-3717).

EXHIBIT F
POINTS OF CONTACT

The following personnel are designated as the principal Points of Contact between NASA and ULA in the performance of this Agreement.

Agreement Points of Contact:

NASA John F. Kennedy Space Center

Robert K. Freeman
Partnership Development Manager
Center Planning and Development
Mail Code: AD-C
Kennedy Space Center, FL 32899
321-867-1897
robert.freeman-1@nasa.gov

United Launch Alliance, LLC

Jack W. Smith
Contract Administrator
Launch Operations
P.O. Box 9009
Cape Canaveral, FL 32920
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Technical Points of Contact:

NASA John F. Kennedy Space Center

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United Launch Alliance, LLC

Daniel Valdes
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